

# Frequency of cutaneous leishmaniasis with population characteristics and treatment behavior in second level hospital care in the Mexican caribbean in 2020 and 2021

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## Introduction

The epidemiology of cutaneous leishmaniasis in the Americas is very complex, with variations in transmission cycles, reservoirs, sandfly vectors, clinical manifestations, and response to treatment. In addition, there are several species of *Leishmania* in the same geographical area. In 2018, Brazil concentrated 97% of the cases of visceral leishmaniasis in the region. But in Mexico it is still difficult to diagnose cutaneous leishmaniasis, being a problem for public health in the Caribbean region.<sup>1,2</sup>

## General objective

With the frequency of attention to cutaneous leishmaniasis in attention in the emergency service and epidemiology as well as the main causal agents, measuring the state of health, accompanying comorbidities, unnecessary antibiotics given by a misdiagnosis and determining the frequency of cure with the different treatment alternatives with respect to the bibliography used.

## Results

(Figure 1–6).

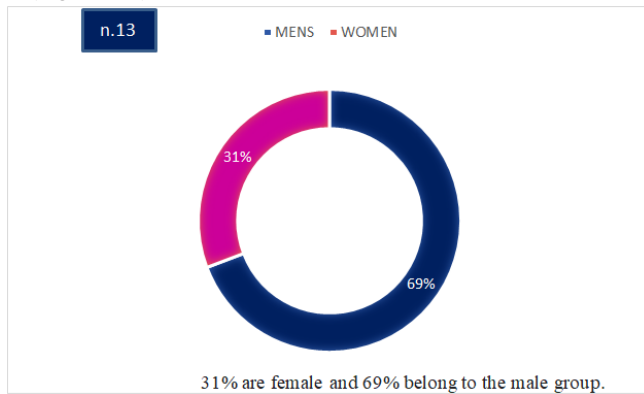
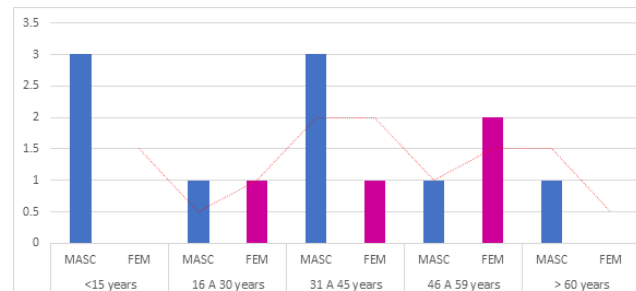


Figure 1 Stratification by sex of patients treated for cutaneous leishmaniasis.



Geolocation of cases by postal code

## WOMEN

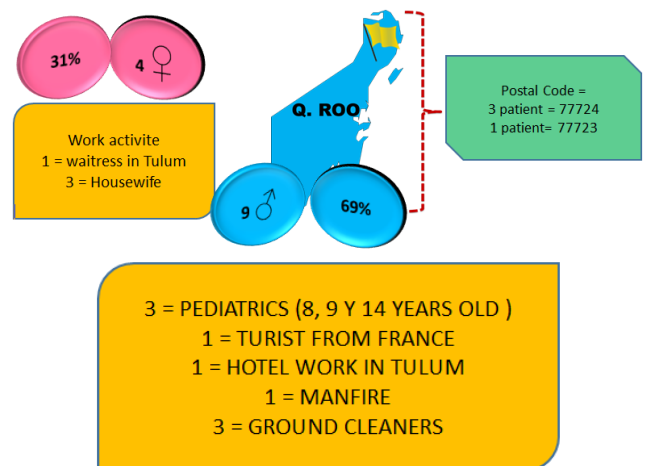


Figure 2 Frequency by age range and sex in patients served for cutaneous leishmaniasis.

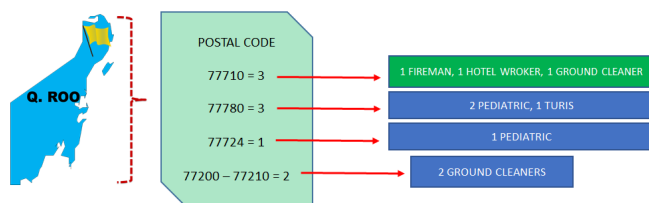
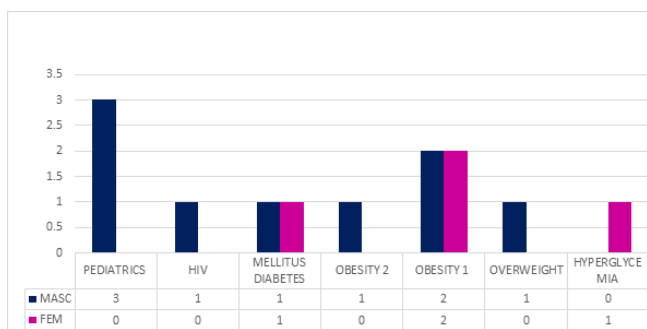
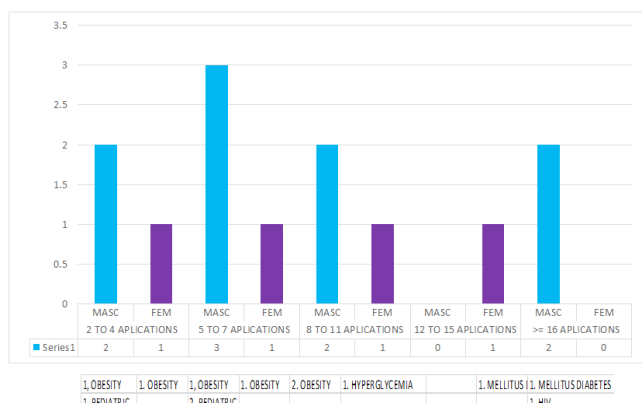


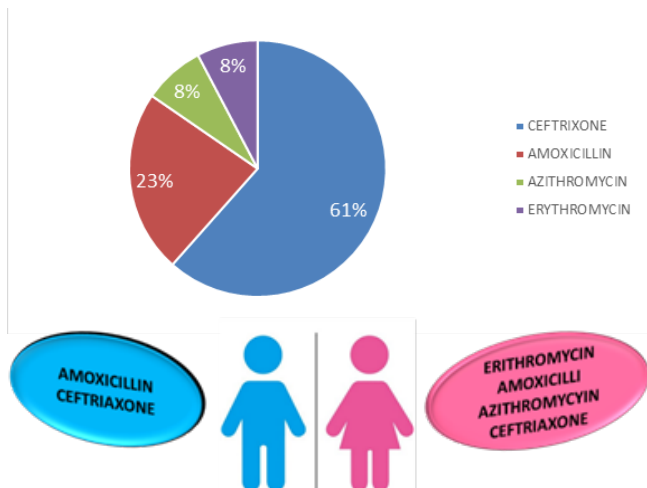
Figure 3 Stratification of comorbidity by sex in patients served for cutaneous leishmaniasis.



**Figure 4** 69% treated with itraconazole (1 tablet every 8 hrs for 14 days)/ketonazole (twice a day for 14 days) and the pедиатrics only ketonazole (twice a day for 7 days).



**Figure 5** Frequency of use of most used antibiotics in patients with cutaneous leishmaniasis given by first level of care.



**Figure 6** Pie chart.

## Discussion

In the present investigation it was found that 30.7% are female and 69.3% belong to the male group, 100% of patients with cutaneous leishmaniasis were given antibiotics indiscriminately, being 61% third generation cephalosporins without need it. Adding comorbidities such as Diabetes Mellitus in 15.3% and HIV in 8%. Being the attentions with the highest frequency of use of the medication Glucantime with Itraconazole/ketonoazole for monitoring and treatment, having a higher frequency of use of intralesional treatment of 16 doses (with comorbidities of HIV and DM2) and having cases of rapid response to treatment with 4 applications in 2 weeks without recurrence in a

follow-up period of 6 months.<sup>3-6</sup>

## Conclusion

The prevention of Cutaneous Leishmaniasis is based on three fundamental strategies:

1. Limit susceptibility to infection, while patients increase their defenses by performing an adequate initial diagnosis without giving inadequate antibiotic treatment.
2. Interrupt the transmission of microorganisms by public health workers with adequate mitigation by making effective detections
3. State and jurisdictional levels carry out active surveillance and constant training for doctors, as well as the participation of surveillance of vulnerable communities that are the most affected.

3 analysis strategies of all clinical care physicians:

- a. Make the appropriate non-irrational use of antibiotics in any state of primary or secondary care, and even more so when dealing with skin conditions that you do not know about.
- b. Make constant exercise of notification, avoid epidemiological silence.
- c. Stagger your treatment codes.

The treatment of leishmaniasis depends on several factors, such as the form of the disease, concurrent conditions, the species of the parasite, and the geographic location. It is a disease that can be treated and cured, but for this a competent immune system is necessary, since the medicines, by themselves, are not capable of eliminating the parasite from the body. Hence the risk of recurrence in case of immunosuppression.

## Acknowledgements

None.

## Conflicts of interest

None.

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